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SPRING

CATALOGUE

OF

New Strawberries.

FREE TO ALL.

MATTHEW CRAWFORD,

CUYAHOGA FALLS, OHIO.

DIRECTIONS, TERMS, ETC.

PLEASE write your name and address *plainly*.

Send money at my risk by P. O. money order, express money order, registered letter, draft on New York, or by express. A dollar or less may be sent in stamps. Individual checks on local banks cause me trouble and expense. Postal notes and currency are not safe to send in letters.

Order early so as to get just what you want. Some varieties will be sold out early in the season. Besides, plants taken up in full bloom and shipped, seldom do well unless they have been transplanted.

Please state whether other varieties may be substituted in case those you want can not be supplied.

I have no varieties to sell at wholesale except the Ohio. It is \$15 per 1000.

Terms, cash—plants bought on credit rarely do well.

It is useless to order any variety not offered in this catalogue.

If all is not satisfactory when plants are received, notify me *at once* and I will make it so.

"ONE THING I DO."

That is to sell strawberry plants that are well grown, true to name, and packed in the best manner. I have every facility for doing good work in my line, and a determination to put forth my best efforts. I expect to pack every plant I sell this spring, myself; and none of my customers are more anxious to get their plants early than I am to send them. Every effort is made to expedite the work, but it can only be done when all is favorable. All other nursery stock can be taken up in the fall and put in cellars, and packed when all is frozen outside, but this cannot be done with strawberry plants. I can rarely take up plants before the first of April, and as I always have many orders on hand at that time, some must wait. It is customary with some to dig a very large number of plants as soon as spring opens, and put them in the cellar to fill orders from. I prefer to make less speed and do better work.

My July report was so well received last summer that I intend to send out another after the bearing season. It will contain an account of nearly all varieties offered in this catalogue, and many that will fruit with me for the first time next June. Many new sorts are sent to me for trial, and I will report on all that seem promising. On others I will report to the owners only. All customers of this spring will receive this report.

Small orders receive the same careful attention that large ones do. If one wants only one-fourth of a dozen he can have them.

M. CRAWFORD,
Cuyahoga Falls, Ohio.

STRAWBERRY CULTURE.

MY aim is to give such information as will enable any intelligent person to raise this fruit successfully, leaving each one to decide for himself whether to engage in it or not. While all will concede that the strawberry is a most delicious fruit, and that a liberal supply would add to the health and happiness of any family, it is not advisable for all to raise it. Some can get more pleasure and profit in another direction. It is a fact, however, that when one becomes thoroughly interested in it, its culture is wonderfully fascinating. Many whose strength had commenced to fail have received more money for the time spent in raising strawberries than they ever before received for harder work.

A friend who planted a few rods in his garden, aiming to raise a liberal supply for home use, sold ninety dollars' worth in addition to supplying the family. The soil was heavy clay, and produced at the rate of 17,500 quarts to the acre.

Judge Miller, the well known horticulturist of Missouri, raised at the rate of 17,000 quarts to the acre.

J. M. Smith, of Green Bay, Wis., raised 111 bushels on a measured quarter of an acre, of sandy soil.

A gentleman of Mansfield, O., raised 75 bushels on a quarter of an acre.

A friend in my own county assured me that he raised six bushels on a square rod.

A friend near Cleveland raised 200 bushels on less than half an acre.

The heaviest crop I ever saw was raised on muck that was always moist from springs that issued from a bank near by.

E. W. Durand, of Irvington, N. J., raised at the rate of 20,000 quarts to the acre.

Over 300 bushels to the acre have been grown on every kind of soil many a time.

One of the best beds I ever knew, about three-fourths of an acre, was grown by an old gentleman who could work but a few hours a day. Many of the berries were five inches in circumference, which is immense for the Wilson, the only variety he had.

I know of a lady, over 60 years of age, who raised one-fourth of an acre, which brought her \$145 last season, besides furnishing enough for the family and a good many for friends. It was planted with Glendale, Cumberland and Sharpless, and the latter produced but few, on account of a late frost, that killed the blossoms. This lady did nearly all the work herself, and has enlarged her plantation so as to increase her income.

When we consider that there is not much hard work about it, except the picking, and that large crops are always good sized berries, and sell at a high price, even when common ones are a drug in the market, it is not strange that people find pleasure and profit in growing strawberries. The demand for good berries has never been supplied, while nearly all markets have been overstocked with poor little Crescents, that are a disgrace to the growers. This variety has done good service in supplying many who would otherwise have had none; but as a profitable market berry it has had its day, unless grown with more care than it usually receives. When allowed to make all the runners it will, it is not fine

enough after the second picking to bring a good price. For those who are not posted in strawberry culture, but desire to raise a supply for home use, with the least labor or care, it is a good sort. A supply of it is a great deal better than none at all, and after raising it awhile, one is sure to get a more desirable variety.

Whether berries are to be grown for home use, for exhibition, or for a near or distant market, it is of the first importance that the best varieties be selected for the purpose the grower has in view. A mistake here may be a serious matter, but if ordinary judgment be used, it need not occur. No one should ever plant largely of any untried variety, no matter how highly it may be recommended. It is best to try it in a small way, and then deal with it according to its merits. If one is a beginner, he should rely on those that have done well on soil similar to his own, and with the same culture he expects to give. No one should commence on a large scale. He will have much to learn, and he may make some mistakes that would be costly with a large plantation. He can not hope to compete successfully with experienced growers, and if he be alone in the business in his vicinity, he will be troubled to get trained help. It is no small job to manage even five acres, if one has not had training. The pickers must be looked after, and the marketing will not run itself. Each grower should raise his own plants, with the exception of new varieties that he may want to test. They can then be taken up as they are needed, and the roots kept from drying. They will be true to name and well grown. The express charges will be saved, and the inconvenience of having a large lot of plants come when one is not ready for them—perhaps in a dry time—will be avoided. Getting plants of some re-

liable person near home is the next best way. No single variety possesses all the desirable qualities in a high degree, and each person must select such as are best suited to his purpose. This requires good judgment, and many make mistakes because they have not informed themselves in regard to the best varieties in the market.

Quality is the first essential in a berry for home use. No one should be content to raise anything but the very best, for his own family. If one has customers who are discriminating, and willing to pay extra for extra quality, it will be profitable for him to raise the best for them. This will add to his reputation, and create a demand for his products. In all towns and cities there are those who are willing to pay a good price for the finest, and too often the supply is very limited.

Beauty adds greatly to the value of the strawberry for any purpose. As this fruit is used not only for food, but to please the eye, the preference will always be given to those that are fine looking, all other things being equal. The form must be regular. Crooked, mis-shapen, ridged and furrowed berries can never be fine looking. The hull should be green and easily removed. The color should be red, the brighter the better. Orange scarlet is too light, and liver color too dark. Cream colored berries with red cheeks are interesting for the amateur, and the same may be said of very dark ones, but the demand has always been for red strawberries. Those that ripen unevenly, having a white end, may be tolerated on account of other good qualities; but this, in itself, is a defect.

The color should extend to the center. A berry with white flesh, like the Kentucky, looks mussy as soon as the skin is broken. Some varieties that are of good color

when picked, fade on exposure to the light. The Glendale does this. All varieties have more color and firmness when not grown too thick on the bed. The flavor, too, is increased by plenty of light.

In addition to good color, a gloss is very desirable. This makes the Jucunda one of the most beautiful berries ever grown, while the absence of it hurts the sale of the Glendale.

Large size is very important, especially for market. While nearly all will concede that a berry of an inch in diameter is large enough, a variety that can be grown little if any larger than that, is sure to be much smaller in nearly every case. It is then too small. There is no profit in raising small berries; and the pleasure of it is not sufficient to compensate for the extra amount of land necessary to produce a given quantity, to say nothing of the increased cost of picking and marketing.

Firmness is indispensable in a market berry, especially if it be shipped a long distance, while it is a defect in one grown for home use, unless it is designed for canning. Thousands of bushels are sent to market before they are ripe, because of their firmness in that condition. Strawberry culture will, in time, become so general that a supply for all places will be grown near by, and no great quantities will be shipped east or west. This will give city people fresher and riper fruit. There will, however, always be a need of firm varieties that may be shipped from the South to the North.

Productiveness is most desirable in all fruits, and the strawberry has been improved wonderfully in this respect. This is not, however, the most valuable characteristic of a variety. It does not follow that the one that yields the greatest number of berries, or even

quarts, is the most profitable. One must count on the increased price received for fine fruit, its ready sale, the satisfaction of the purchaser, and the pleasure of handling it. It costs no more to haul fine fruit than the poorest, and the latter sometimes fails to sell for enough to pay for the transportation.

Before strawberries became so common, a poor lot could be sold to some one, but it is not safe to count on this now. Many of our productive varieties are too small to yield a profit. In markets where a good article brings no extra price—and there are such—the kind that produces the largest number of quarts at the least cost is the one to plant. As a rule, pistillate sorts are the most productive, but it is something of a drawback to have to plant every fifth row to a variety having perfect blossoms.

Location.—As the strawberry flourishes in every part of the United States, it is needless to say much about location. Still, it is a cold-blooded plant, and, all other things being equal, it will succeed better in the North than in the South. Even in Canada, a northern slope is to be preferred. The eastern is the next best, and a southern the least desirable. It is not best that the bed be shaded during any part of the day ; but to be sheltered from the west wind is an advantage. It is especially important that the bed be free from the roots of living trees. The strawberry needs all the moisture it can get during the growing season, without being cut short by the roots of other plants. It is commonly supposed that the roots of a tree extend as far in each direction as it is high, but this is no certain rule. A black walnut seems to interfere but little with the growth of any crop near by, while an elm or a maple will send its roots twice as far as it is high, and appropriate the food and moisture

needed for other crops. The roots of an elm, in New Hampshire, stopped up a drain 400 feet from the tree. An English gardener cut down a row of elms, because they sent their roots into the flower beds 300 feet away. Many a town garden is nearly ruined by the roots of trees growing in the street. Each foot of leaf surface gives off one and one-fourth ounces of water in a bright day, and a large tree has as many as 200,000 feet, and takes from the soil 50 barrels a day. It is no uncommon thing for a tree to fill a quarter of an acre with its roots so that no other crop can flourish. This is why crops fail along side of woods or near fence rows where trees are growing. Sometimes large weeds on the other side of the fence send their roots into beds and take the food and moisture.

Soil.—Any soil that is rich, cool, and moist, is suitable, if properly prepared. It may be sand, gravel, muck, clay or loam. If too wet it must be drained, as the strawberry can not flourish with its roots in standing water. It is an advantage to have a deep soil, so as to invite the roots to a greater distance from the surface. This will enable them to flourish in a dry time. It should be thoroughly pulverized, so that the roots may extend through every part of it. It is not best to turn up much of the subsoil at a time, especially if one has not plenty of stable manure to harrow into the surface after plowing.

It is very important that the soil be rich, so that the plants can work to some purpose. Setting them out to convert the fertility of the soil into fruit, and then failing to supply fertility, is exceedingly unwise, especially when commercial fertilizers are so easily obtained. The strawberry is not a gross feeder in the sense of removing a great amount of fertility from the soil, but the plant is

made up of very rich material, and a large amount of plant food is necessary to bring it into a bearing condition. The plant can do such good work when well supplied with raw material, and plant food is so greatly enhanced in value by being converted into strawberries, that no one should hesitate to provide all that can be profitably used. How much this is, depends on the fertility already in the soil, and one can not always tell what amount may pay best. It is well to make sure of enough, because nearly all the surplus will remain in the soil to be used by a succeeding crop. I have known 120 two-horse loads of cow manure to be put on an acre, and one of the most successful growers I know of has applied as much as two tons of bone dust per acre. These immense crops of three and four hundred bushels per acre are always grown on very rich soil. Bone dust and wood ashes, ten pounds of each to the square rod, will make any soil rich enough to produce a good crop.

If stable manure be thoroughly rotted, it may be scattered on the surface after plowing, and harrowed in. If only partly decomposed, it may be plowed in. Fresh horse manure may be scattered on the surface of a bearing bed when the ground is frozen, and left there. It will serve as fertilizer, protection and mulch. If bone dust and ashes be used, it is well to plow in half of it and harrow in the remainder. Superphosphate should be scattered along near the plants after setting, and worked in with hoe and cultivator. Another application may be made in the fall at the last hoeing. Unleached wood ashes may be sown on the bed after setting, or at any time when the plants are dry. It is possible to use too many. I knew a man to kill his plants by too heavy an application.

It is a pleasure to use dissolved bone or superphosphate for strawberries. The plants send out such a lot of roots that they fill the ground where it is used, as if they were anxious to appropriate every atom of it as soon as possible. It is never wise to apply superphosphate with lime, nor on land that has been recently limed.

Methods.—Before planting, it will be necessary to decide what method is to be employed—hill culture, matted rows, or a compromise between the two. Each has its advantages and its weak points. The finest fruit and the most satisfaction may usually be obtained by the hill system, while the largest yield at the least cost usually comes from matted rows. A compromise between the two has many of the advantages of both, and is an excellent method.

In hill culture the plants are set in rows, three feet apart, and a foot apart in the row. More room than this is unnecessary. Much of the cultivation is done with a horse. All runners are cut off through the season, as soon as they start, and *before* they have exhausted the parent plant. A boy with a knife can do it rapidly. This strengthens the plant and prepares it to bear a heavy crop. When grown in the garden, in a small way, the rows may be as close as two feet.

When grown in matted rows, the plants are set in rows four feet apart, and from one to four feet apart in the row, according to the vigor of the variety. The cultivation is done mainly with a horse, and the runners are allowed to root along the row instead of being cut off. It is well, however, to cut off the first ones that come out, as they are weak. After July first, all may be allowed to grow. The row of plants will get wider and wider, and the cultivator must be narrowed up. The weeds that

come up among the plants must be removed with the hoe, and by hand. Some growers allow just so many runners to root, and no more, after which all are cut off both from the old and new plants. This is an improvement over the common matted row method.

Planting is usually done in the spring as early as the soil is dry enough. Plants are then nearly dormant and will endure more neglect and rough handling than at any other season. If, for any cause, the work can not be done at that time, the plants should be taken up, and the roots shortened to two inches, after which they may be set three or four inches apart, where they can stand till June, if necessary. These transplanted plants may be set permanently at any time, with but little check, provided they be well watered before they are taken up. In planting, the crown should be left on a level with the surface. This is important. If set too deep they will scarcely live.

Potted Plants may be set out at any time from the first of July until October. They are very satisfactory to use on a small scale. Some commercial growers use them largely, but this pays only where they raise their own, or purchase them near by. The express charges would seriously diminish the profits on those shipped any considerable distance. When one can buy potted plants of new, high-priced varieties, it is a good way, as every one will not only grow, but fruit to perfection. There were objections to potted plants when grown in the old way, and I neither used nor sold them, lest the larvae of the crown borer or strawberry root worm might be carried in the pots to the new bed. This danger is entirely removed by growing the plants in frames at a distance from where the runners are produced. I failed several

times before I succeeded perfectly in raising potted plants from cuttings or buds taken from runners when just ready to root, but the method, when understood, is perfection itself. I send out potted plants in the pots, packed in baskets, with plenty of damp moss between. There is no risk in buying them, as they reach their destination in perfect condition and never fail to grow. From 50 to 75, according to the size of the plants, are put in a common handle basket. Last summer I sent them to New England, and to points west of the Mississippi, and had them give perfect satisfaction.

Next to potted plants for summer and fall planting, are layers that have been transplanted. These are set three or four inches apart, and shaded and watered if necessary, until great numbers of new roots start. They are then well watered, and the plants, with all the soil adhering, are transferred to the permanent bed. Nearly all our finest show berries are grown on fall set plants, either potted or layers.

Cultivation.—From the time plants are set in the spring until near the end of the growing season, the surface should be kept stirred, not only for the destruction of weeds, but to keep an inch or two of loose soil on top to admit air and retain moisture. All cultivation should be very shallow in the fall, lest the surface roots be disturbed.

Winter Protection—By whatever method strawberries are grown, they should be covered during the winter. This is especially true on land that is inclined to be wet. The surface of the soil, if wet, is expanded and slightly raised by freezing, lifting the plants with it. During the next thaw, the soil settles into its place, but the plants do not. When this is repeated a number of

times, the plants are left with a large part of their roots above ground, and are either greatly injured or killed outright. This may be prevented by covering the bed with any kind of litter that will shade the surface and prevent its frequent thawing. Straw is commonly used. Tan bark, saw dust, stable manure; anything that will shade the ground will answer. If the covering is of such a nature that it must be removed, it should be taken off as soon as growth commences. It is an advantage to leave it on if this can be done, as it will keep the fruit clean and the ground moist.

Insects.—The most troublesome insects with which the strawberry grower has to contend, are the white grub and the strawberry root worm. There is no known remedy for the white grub. It is the larva of the May beetle, and lives three years in the ground. During the last year it is especially destructive, eating the roots of plants. It is often troublesome in sod ground, and the only safe way is to plant on land that has had hoed crops on it for at least two years.

The strawberry root worm is injurious in the larva state. It is found in many places where its presence is never suspected, as it is quite small, not much thicker than a pin and less than a quarter of an inch in length, with a white body and a brown head. It eats the fine roots off from the plants during the summer and early fall. The perfect insect is a little smaller than an apple seed, light brown, and may be found in the spring and last of summer eating holes in the young, unexpanded leaves. Keeping beds year after year gives this pest a good chance to increase. Plowing under the bed as soon as the fruit is picked is the best way to destroy it. It may be, however, that burning the bed over after the

crop is secured, a custom that is becoming popular, would keep it in check.

Wind Mills.—Many strawberry growers imagine that a wind mill and tank will enable one to irrigate a large area, and be comparatively independent of rain; and many have gone to great expense to provide these appliances. Disappointment has followed in nearly every case. It requires not less than 35,000 gallons, at one watering, for a single acre, and this should be applied at least twice a week. The average wind mill will not supply one-tenth of this amount.

Marketing—After going to the trouble and expense of raising berries for market, one should give his best thoughts to securing and selling them. It is very important that they be carefully picked and all the small ones kept by themselves. This is easily done by carrying along a quart basket for them. They should never be sent to market, as they are hard to sell and bring but a trifle—not enough to pay for the loss of self-respect. It is a great mistake to mix small berries with larger ones. They add but little to the measure, while they detract greatly from the appearance. I think that those who once assort their berries will never go back to the old way of selling them all together. It is well to use new baskets, discarding all that are soiled or stained. This will help one to think well of his own fruit, and enable him to get a better price for it. All the baskets should be well filled, and of uniform grade from top to bottom. Berries handled in this way meet with a ready sale and disappoint no one.

DESCRIPTIONS.

Warfield's No. 2—A seedling discovered by B. C. Warfield, of Illinois, in 1883. It fruited in 1884, and a bed containing five square feet yielded a quart every second day. The blossom is pistillate. Plant, a vigorous grower with long penetrating roots to resist drouth. It blossoms and ripens with the Crescent, and has tall leaves that protect the blossoms from spring frosts. Single plants have produced 195 blossoms and berries. It equals the Wilson as a shipper, and is superior to it in every other respect. Mr. Warfield considers it the most valuable variety with which he is acquainted, and he has tested a large number during the past 20 years. He plants no other variety except to fertilize its blossoms. It has yielded one-half more than the Crescent with the same chance, and is far superior in every other way. Mr. Warfield has eight acres, and has shipped the fruit to more than twenty cities and towns in Illinois, and all who have handled it testify to its great superiority as a shipping berry, and one that is highly satisfactory to buyers. I have heard much of this berry for the last year or two, and a large number of extensive growers have been waiting patiently until it could be obtained. It is thought that it will supersede the Crescent. Growers in Mr. Warfield's neighborhood say, "We will have to quit the business or get some of Warfield's No. 2."

OHIO AGRICULTURAL EXPERIMENT STATION, }
COLUMBUS, OHIO, June 28, '87. }

"Plants of Warfield's No. 2 are growing finely. It is all that can be desired as to health and vigor of plant."

PURDUE UNIVERSITY, }
LA FAYETTE, IND., June 6, '87. }

"B. C. Warfield, Dear Sir:—The plants of your No. 2 strawberry, set last April, are making a vigorous growth comparing favorably with any other variety set at that time."
Yours truly, J. TROOP.

LAGRANGE, Mo., June 29, 1887.

"*B. C. Warfield, Dear Sir* :—The dozen plants you sent me in April last did well, although the season has been unusually dry. I think a good deal of the Warfield's No. 2, from its conduct up to this time. I think I never saw spring-set plants of any variety produce any more fruit. The berry was good size, good shape, and good color, with flavor above the average; a tough skin so as to bear rough treatment, hence, I think it will make a good shipper. I think you have a good thing in Warfield's No. 2, and I want to set one thousand plants of them next spring. When I planted the Warfield, I set by the side of them Jessie, Jewell, Bubach, and Crescent, and now with the runners all kept cut, the Warfield is the most vigorous plant of the lot. Next is Crescent, then Bubach, Jessie and Jewell. I let all of them fruit, but Warfield's No. 2 led all of them in quality of fruit as well as growth of plants."

Yours truly, WM. H. THOMAS.

COLEVILLE, Cal., July 17, '87.

"*B. C. Warfield, Dear Sir* :—The plants of Warfield's No. 2, you sent me by mail last spring, arrived in fine condition, and were planted along side of Wilsons, grown here for several years. Also Hoffman's Seedling and Parry received by mail. Your No. 2 grew right off, the others did not. Two weeks after setting we had a cold spell, ice formed one-half inch thick on running water, and ground froze an inch or more. Out of the fifty-two plants of your No. 2, I lost six, and of the 100 Hoffman's I lost fifty-six, and all of the Parry and one-third of the Wilsons. For vigor of plant I think your No. 2 has no equal, and for hardiness it is ahead of any berry we have in this part of the country. It is a pleasure to look at them growing. I counted ten fine plants from one hill and more starting. They look beautiful. I will want more of the plants as soon as you have them for sale. I admire the manner in which you packed your plants, they arrived so fresh and nice."

Yours hastily, R. G. WATKINS.

Gold.—Originated by P. M. Augur & Sons, of Connecticut, in 1880, from seed of the *Jersey Queen* and

Prince of Berries sown together. This seedling, from the first, has been noted for its very fine quality.

"At the strawberry show of the Massachusetts Horticultural Society, held in Boston, in June, 1886, the GOLD took the silver medal as being the best new seedling strawberry, and was said to be the gem of the exhibition. We heartily commend it to all in search of a berry of the highest quality, combining, as it does, this with excellence of form, firmness, color, productiveness and vigor. As a family berry of superior quality, we believe the GOLD to have no equal, excelling in this respect the now famous *Jewell*, while its good form, size, productiveness and vigor make it more desirable than the *Prince of Berries*, and others noted for quality, but deficient in other ways.

DESCRIPTION.

The GOLD is a strawberry of the finest quality, excelling the *Jewell* in this respect, nearly regular in form; size averages large, firm in texture, keeping well for several days after being picked; color, bright scarlet with golden seeds; season long, from medium to late; plants vigorous, making new plants rapidly, and is productive. The blossoms are pistillate."—P. M. Augur & Sons.

WEST CORNWALL, CONN., July 15, '87.

"The GOLD has a healthy, vigorous vine, makes plants rapidly, bears well, and continues in season a long time. We expect to pick our last berries of that and the *Jewell* to-day. Berries good form and size, and of excellent quality."—T. S. Gold.

OFFICE OF GEO. AUSTIN BROWN, M. D., CONN. }
STATE BOARD OF AGRICULTURE, STATION FOR }
TESTING NEW FRUITS, JULY 18, 1887. }

"The GOLD strawberry has been under inspection on my grounds during the past year, and has been fully compared with many other leading varieties. It has proved to be a strong grower, averaging well in this respect with the best, as it also does in yield. Its especial points of excellence to my mind, are its uniformity of size, superior quality and flavor, which must cause it in

time to take a front position with those varieties now most esteemed.”—Geo. Austin Brown.

OHIO AGRICULTURAL EXPERIMENT }
STATION, JULY 15, 1887. }

“The GOLD is very vigorous in growth, and very productive. The berries are large and of good quality. I should like it better if it were a little darker in color. Take it all in all, it seems to me to have great merits.”—W. J. Green.

NEW YORK, July 18, 1887.

“I fruited the GOLD strawberry last year, and was well pleased with it; while it is not as prolific as the *Jewell*, its quality was better.”—F. M. Hexamer.

GRANTON, Ont., July 19, 1887.

“The GOLD strawberry plants sent for trial have done well here, and for the care the strawberry generally gets for market, the GOLD will take care of itself. Like the *Crescent*, it will suit the person who likes a profitable market berry, quality, good color, firmness and productiveness, these are good points in a profitable market berry. I think you can confidently offer the GOLD.”—John Little.

WEST NEWTON, Mass., July 22, '87.

GENTLEMEN:—“I have grown your seedling strawberry, GOLD, the first three years in matted rows. The plants make runners freely and cover the ground evenly. In quality I consider it among the best in the class of large berries.” Yours truly, E. W. Wood.

Bomba.—“A seedling of crimson cluster, with a perfect blossom. Strong grower, healthy foliage, fruit large size, firm, a good shipper, rich crimson color; flesh, dark red; ripening the earliest among twenty-five varieties. On account of color and firmness, it is especially desirable for preserving and canning, so that one extensive Conserve Co. has for the past three years contracted for our crop at prices far above the market rates for the best berries. We have for several years grown BOMBA as our most profitable strawberry, but at the earnest so-

licitations of its many admirers, will offer a limited quantity for sale."

The above is from the originator, Judge Perry, one of the most extensive strawberry growers of New Jersey.

Jos. L. Lovett, an extensive and very successful strawberry grower, of Pennsylvania, writes: "The Bomba received from you, spring 1886, for testing, passed through the winter remarkably well, and such a yield of beautiful dark colored berries could not be found anywhere in Bucks county. The yield was enormous. I had some canned, and never had any to equal them in that respect. I have been growing strawberries twenty-five years, but have never had anything like the Bomba. Every one who saw them was pleased with them."

Theo. F. Baker, ex-President N. J. State Horticultural Society, writes: "The Bomba strawberry plants you sent me to test in the spring of 1885, I am pleased to report most favorably. I have now harvested two crops of fruit from them, grown in matted rows and hill culture. I pronounce it one of the most profitable berries I have to-day among twenty-five varieties. As proof of this I have set but four varieties for next season's fruiting, and Bomba represents one-fourth the quantity. Bomba is a vigorous grower, foliage good, fruit stems short, but stout, round, conic, bright dark red in color throughout, texture very firm, quality fair to good, staminate, and with meripens ahead of Gypsy, May King or Crescent seedling, and in yield compares favorably with either. Ripens evenly with no white tip. I consider it a valuable variety."

My customers will receive the Bomba directly from the introducer, who has had many years experience in packing plants.

Logan.—Originated by J. H. Haynes, of Indiana. It is one of the largest berries ever produced. Mr. Haynes raised 23 in 1886 that weighed 32 ounces. The plant is a vigorous grower, free from rust and very productive. Blossom, pistillate. Fruit, very large, nearly round, regular in form, of good color and quality. It has fruited twice with me. In 1886 it produced some

very fine berries with ordinary cultivation. That fall I set out about 300 and gave them good culture, so as to see what it could be made to do. It was not nearly as fine in 1887 as the year before. It bore a few large berries and a great many small ones. I said nothing about it in my July report, but I see it has done well for others.

Haverland.—Originated in 1882, by B. H. Haverland, of Hamilton Co., Ohio, from seed of the Crescent, fertilized by the Sharpless. During the past dry season, it made a better growth than any other variety on my place. Not a spot of rust appeared on it. It has not fruited with me, but personal friends who have seen it in bearing, assure me that it is wonderfully productive. The originator says: "It is, perhaps, the most productive of any strawberry now cultivated. The berries are firm, uniform in shape, very large, of most excellent flavor, and bright red color. It sells more readily and brings a better price than any other strawberry. The plants are very large, healthy, vigorous, and ripen their fruit evenly and early, holding on through the season. They withstand rust or blight as well as other varieties, and do not heave by the frost as badly as Wilson, Sharpless and May King which were planted between them to fertilize them."

Few varieties were ever sent out with better recommendations, but I will quote only the following:

"When called to witness the growth and productiveness of this, his great favorite, I was truly taken by surprise, it growing alongside of the Manchester, Mt. Vernon, Crescent, Sharpless, and a number of his own seedlings, surpassed them all in strength of plant, productiveness, size and color. Some three or four trusses to many of the plants, and these, though strong and tall, lay prostrate by the mass of fruit upon them. I have been a grower of strawberries for fifty years, and for strength and productiveness of plant I have not seen the 'Haverland' surpassed."—Prof. F. G. Cary, of Cincinnati.

M. T. Thompson, who raises over fifty acres of small fruits for the Cleveland market, wrote Mr. Haverland as follows: "The strawberry plants we received from you this last spring were the finest we ever saw, and when they came into bearing they were loaded with fine, large berries. In speaking of them, the ground was literally covered with berries. We planted them beside the May King, in a row with Jewell, Bubach, Monmouth, Belmont, and several other kinds of high-priced plants, but these were no comparison. It is really a wonderful berry. While we have seen many different kinds of strawberries, and are growing twenty-six acres this year, your berry beats them all, and so says every one that saw it. As we said before, we will give one hundred dollars for one hundred plants of any strawberry, old or new, that will beat them in bearing, size and color, side by side on our grounds. You certainly have the finest and most productive strawberry growing to-day."

Gandy.—I have a fine stock of this variety of my own growing. It has not fruited here, but for healthy, vigorous growth, it is all that could be desired. I have heard some good reports of it, and not a word that was unfavorable. "The latest of all strawberries and the best shipper and keeper. Like Monmouth, it never rusts or has any disease, and the fruit never scalds, no matter how hot or wet the weather. Of mammoth size, regular, bright scarlet, prolific, perfect blossom. Ripens two weeks after Sharpless, and is such a remarkable keeper; remains in good condition for a week after ripe."—J. T. Lovett.

Monmouth.—I received this variety from the originator last spring. It has made a good growth on my soil, and is healthy and vigorous so far. It has not fruited with me. J. T. Lovett, the introducer, speaks of it as follows: "The earliest of all strawberries and the most vigorous. Ripens two weeks before Sharpless, never rusts or burns; large, very firm, brilliant scarlet, regular form, delicious quality, and wonderfully prolific—excelling in vigor and productiveness even Crescent;

having a perfect blossom, fruit double the size, and all the merits of that popular variety magnified, and none of its defects."

Mammoth.—"Originated by William Davis, of New Jersey, and thought to be the largest berry ever produced. The fruit averages about as large again as the Sharpless; berries of a better shape, and in every other way superior. Good, healthy, strong plant, clear of rust or blight; berries deep, rich red, ripening all over at once. No white tips, and a better cropper than the Sharpless, of larger and finer fruit. Quality unsurpassed by any, and of fine flavor."—Thos. Zane, the introducer.

"It is, without exception, the largest berry I have ever seen. I think it merits its name."—Hewlings Lippincott, of New Jersey.

"I never before saw such berries grow."—Geo. Ward, an extensive berry grower of New Jersey.

"I saw these berries growing, and they were not only large here and there, but they were all large."—John D. Glover, of New Jersey.

"Thos. G. Zane, Camden Co., New Jersey, has been awarded the two highest premiums for the largest and best flavored strawberries raised in the State. They are the Mammoth variety, and eleven berries filled a quart measure. He exhibited two boxes of very handsome ones at the Commercial Exchange on Saturday, which attracted a good deal of attention."—*The North American*, Philadelphia, June 14, '86.

"An exhibit of a new variety known as the Mammoth, by Thos. G. Zane, of Camden County, N. J., attracted especial attention on account of the size of the berries, which were the largest on exhibition, and in four quarts contained only fifty berries, one quart being completely filled by eleven berries, and the other three containing but twelve, thirteen and fourteen respectively."—*Moorestown Chronicle*, June 17th, 1886.

Jessie.—The best berry for either home use or market ever introduced. I have fruited it three times and

watched it closely, and so far, it is almost faultless. The variety was originated from seed of the Sharpless, by F. W. Loudon, of Janesville, Wis. The plant is large, healthy, free from rust, a vigorous grower and wonderfully productive. Blossoms, perfect. Fruit, very large, sometimes wedge-shaped, but never cox-combed or mis-shapen. Color, bright red all over; in quality, one of the best. I have more faith in it than in any other now in the market.

Bubach's No. 5.—One of the very best ever introduced. It has fruited twice with me, and I have heard very favorable reports of it from all parts of the country. I think the commercial fruit grower will find in it a very profitable variety to raise. The plant is large, healthy, vigorous and very productive; leaves dark green and free from rust; runners, strong and abundant; blossoms, pistillate; fruit, very large; the first berries slightly irregular, but usually of good form. It ripens all over and is a good keeper. The quality is good, though not extra. If it has any weak points it is in looking rather coarse, and this is mainly on account of its immense size.

Summit.—A seedling of my own, and the largest and most beautiful berry I have yet seen. The plant is very large and sends out a good number of strong runners. It is somewhat inclined to rust, although this does not show itself every season. This is its one weakness. Blossom, pistillate, and usually every one perfects a berry. The form is roundish conical and never mis-shapen, not even flattened. It colors evenly, and is of a beautiful, glossy red. It has never failed to be the finest berry on exhibition wherever shown by me. It is large to the end of the season, quite firm and of good quality.

Itasca.—Originated by J. H. Haynes, of Indiana, I have fruited it three years. It is a good grower, nearly free from rust and enormously productive. Blossom, perfect. It does, however, produce some pistillate blossoms. Fruit, of medium size, rarely over an inch in diameter, roundish, and very uniform; it colors all over and is a desirable berry for home use, being of

most excellent quality. I have seen 25 ripe and 200 green berries on one plant.

Ohio.—From southern Ohio. This variety resembles the Crescent in vigorous growth and great productiveness. It sends out many runners and is sometimes, though not always, troubled with the rust. The blossom is pistillate. The fruit is little, if any larger than well grown Crescents, but it holds its size to the end of the season better than that variety ever did here. It is very late in ripening and bears the bulk of its crop after others fail. Its bright red color and uniform shape and size, cause it to sell readily, and it will be a profitable market berry.

Ontario.—A Canadian berry, introduced by Robert Johnson, of New York, as the Great Ontario. I have fruited it twice and have examined it in bearing elsewhere, and the least I can say for it is that it is almost exactly like the Sharpless, one of our most valuable sorts. Some have claimed that they are identical, while others say that the Ontario is larger and far more productive. In any event it is a very excellent variety, and I think no one will be disappointed in it. The plant is all that can be desired; the blossom is perfect, and the fruit is immense, and produced in great abundance. I am hoping that it has a hardier blossom than the Sharpless; and if it has it will be very valuable. One of the most careful growers in Connecticut, wrote me last summer that it has every characteristic of the Sharpless. Another noted grower in New York wrote me that it is twice as productive. On the Miller fruit farm, at New Philadelphia, O., where all the choice varieties are grown in large quantities, it was the opinion of the superintendent that the two were identical. In examining them carefully with Mr. Miller, we found more misshapen berries among the Sharpless than among the Ontario. My stock came from the introducer, who is well posted, and, I think, reliable.

Jewell.—Originated by P. M. Augur, Connecticut State Pomologist. As a profitable market berry for hill culture, this is one of the best. It makes a large

plant, is perfectly healthy, free from rust, and an enormous bearer. Blossom, pistillate. Fruit, very large, of good form, ripens all over, and is of good quality. It makes few runners, and sometimes is a poor grower in the west. It does well here. It ripened berries 62 consecutive days in Dayton, O. "At Providence, R. I., this year, (1887) the Jewell took the first premium for size, first premium for color, and first premium for form, (at the Strawberry Show of the Providence Horticultural Society). At the Strawberry Show of the Massachusetts Horticultural Society, held in Boston, June 29th, a special prize was given the Jewell. At the BELMONT, (Mass.) Strawberry Show, held June 30th, 1887, the first premium for the best two quarts of any variety was given to the Jewell, and we understand that it was the opinion of the committee that these two quarts of Jewell, exhibited by Mr. Barnard, were the best of any berries ever exhibited at any show of the Society."—P. M. Augur & Sons.

Covell.—The earliest berry I have yet fruited. It is a healthy, vigorous grower, has a perfect blossom and is fairly productive. The fruit is of medium size, rather smaller than the Crescent, nearly round, very firm, and of fair quality. Good for home use; too small for market.

Belmont.—This variety has received great praise, and I expected much from it. It made a good growth with me, and was free from rust, but it was less productive and more irregular in form than I expected. It had a good chance, but failed.

Henderson.—Originated in Connecticut, and was introduced by Peter Henderson & Co. Its prominent characteristic is its superior quality, it being the best flavored berry on my place. The plant is perfectly healthy and has never shown signs of rust. It is an excellent grower, has a perfect blossom and is moderately productive. Fruit of large size, glossy red, firm and delicious. It ripens somewhat unevenly.

Photo.—A seedling of my own. The plant is very large and stocky, an excellent grower, very productive,

inclined to rust, but always matures an immense crop. I have seen it almost red with rust in the fall, but fresh and green the next spring. It has often produced two quarts on a single plant when grown in hills. It has a pistillate blossom. The fruit is nearly round, dark glossy red, very beautiful, and too tender to bear much handling. A good berry for home use.

Cornelia.—A seedling of my own. The plant has not been satisfactory in all places. It sometimes lacks vigor and is liable to rust. It needs good culture. It is valuable for its lateness, not that it is later than any other, but it is larger and finer looking than any other that comes into market at the same time. It has a pistillate blossom, and usually produces as many berries as blossoms. It is of regular conical form, light glossy red, quite firm, and of good quality.

Norman.—Originated with myself about sixteen years ago. It is a good grower, though not always free from rust, a prolific bearer, and has a perfect blossom. It is the earliest very large berry I ever fruited. It was sent to nearly every state in the Union for trial before it was offered for sale, but the reports were not very flattering, and but little was ever said about it. I think it was never sold for more than fifty cents a dozen. It is about the size of the Sharpless. I had seventeen that filled a quart jar, and have had single specimens of good form over two inches in diameter. It is rarely mis-shapen, of good color to the center, quite firm, a good keeper, and has a sprightly, acid flavor that most people relish. John F. Beaver, of Dayton, who has raised the finest berries ever produced in Ohio, prefers the Norman to all others, and the Photo next.

May King—A New Jersey berry of real merit; a rival of the Crescent. The plant is wonderfully vigorous and healthy, producing as many runners as the Crescent. It has a perfect blossom, is a good bearer, and quite early. Fruit, of good size, light red and good quality. It is a reliable variety.

Cumberland—Originated by Amos Miller, of Pennsylvania. This is one of the best berries ever sent out,

and is too well known to need any description. The plant is all that could be desired for health and vigor. Blossom perfect. Fruit, very large, no small ones, of as regular form as if turned in a lathe, light scarlet color, not very firm, fairly productive and of good quality. It is not considered firm enough for a distant market, and yet it has been shipped from eastern Ohio to Chicago.

Lida—From New Jersey. A healthy, vigorous grower, free from rust, and an enormous bearer. Blossom pistillate. Fruit about the size of the Wilson, roundish, of good color, ripens all over, and is of good quality for a market berry.

Carmichael—This originated with one of the most extensive growers of Belmont Co., O., a county that produces more fine berries than any other in the United States. I have mislaid the description of this variety. The plant is a healthy, vigorous grower, and the fruit is said to be very large, and the latest of all. I have not fruited it, but the plants I offer are of my own growing.



PRICE LIST.

	Doz.	100
Gold	\$2 00	\$10 00
Warfield's No. 2.....	2 00	10 00
Bomba.....	2 00	10 00
Logan.	2 00	10 00
Jessie.....	75	4 00
Haverland.....	75	4 00
Gandy	75	4 00
Monmouth.....	75	4 00
Mammoth.....	75	4 00
Summit.....	75	4 00
Itasca.....	75	4 00
Bubach.....	75	4 00
Lida.....	75	4 00
Carmichael.....	75	4 00
Covell	50	2 50
Jewell.....	50	2 50
Ohio	50	2 50
Ontario.....	50	2 50
Henderson.....	50	2 50
Cornelia	50	2 50
Photo	50	2 50
Belmont.....	50	2 50
Cumberland.....	25	1 25
Norman	25	1 25
May King.....	25	1 25

At these prices, plants will be sent postpaid to any P. O. in the United States. When sent by express, *not prepaid*, the price will be 40 cents per hundred less. In either case they are warranted to reach their destination in good order.

GLADIOLUS BULBS.

I have been growing the gladiolus for the pleasure of it, for some twelve years, and now my stock is so large that I find it necessary to reduce it. I raised the common varieties for some time before I was aware that it had been so greatly improved. Then I purchased about 100 named varieties, several of which cost over one dollar each, and a lot of fine seedlings, which were so satisfactory that I became thoroughly interested, and commenced to raise seedlings of my own. I purchased seed from good sources, imported some from Europe, and saved some from the best of my own, from which some very fine varieties have been produced. Some of the very best of these have been named and are not in the collection I offer. Some of the poorest have been destroyed. The collection now contains about 100 named sorts and many very fine seedlings, all mixed together. One is not very likely to get fewer than ten varieties out of a dozen bulbs.

A part of this collection has been exhibited at the Ohio State Fair, the meeting of the American Horticultural Society, a meeting of the Columbus Horticultural Society, and at our Summit County Fair, and it received the first premium at each. I had nearly 300 varieties at our State Fair last fall. It is seldom that one can buy as good varieties as I offer at the price.

The gladiolus is very easily grown. The bulbs are planted in the spring about a foot apart, and from two to four inches deep, according to the size. It is well to plant at different times from May first until July first so as to prolong the season of blooming from July until hard frosts. They need no more care than a bed of onions. In July or August each bulb sends up from one to four spikes of flowers resembling lilies and of almost all colors except blue. White, yellow, and every shade of red may be found among them. Sometimes the spike grows upwards of five feet high and bears over 20 flowers. They are very beautiful indeed. When the first flower expands the spike may be cut off and put in water, where it will continue in bloom until the last flower opens. As soon as hard frosts come, the bulbs are taken up, divested of their tops, after which they are dried and put in the cellar till spring. In taking them up, one can save the small bulbets that are found on the underside and sow them in May like peas. They will make small bulbs that will bloom the following season. Bulbs no larger than filberts will bloom as well as larger ones, but will send up fewer spikes.

Price, by mail, from 30 to 60 cents a dozen, or from \$2 to \$1 a hundred, according to size. One-fourth less by express.

HALIFAX, NOVA SCOTIA, April 27, 1887.

DEAR SIR: -The Jessie strawberry plants arrived last evening in splendid condition, and although having come such a long distance by mail, are as fresh and green as if just taken from the ground, which bears testimony to your excellent system of packing. Many thanks for your very liberal count. And believe me,
Yours very truly,
JOHN H. BURTON.

BOUNTIFUL, UTAH, April 16, 1887.

"Plants came this morning in fine shape. Glad to get them. Shall cultivate them with great care, and hope to find some valuable varieties for Utah among them."

DAVID PEEBLES.

PETERSBURG, VA., April 23, 1887.

"The package of 'Crawfords' was received a day or two ago in tip top order, as verdant and fresh as if they had just been drawn from their bed."

JOHN T. ROBERTSON, JR.

EDITOR FARM JOURNAL:—Seeing Mr. Matthew Crawford's (of Cuyahoga Falls, Ohio,) advertisement in the Farm Journal, I bought some strawberry plants of him, and wish to say I found him one of the most prompt and fair dealing men I ever had business with, and I can cheerfully recommend him to persons desiring stock in his line.

B. O'DONNELL.

CUMBERLAND, MD., Oct. 9, 1887.

HAMDEN JUNCTION, O., April 17, 1887.

"My strawberry plants arrived in time. They were the best put up, and the best set of plants I ever received in my thirty years of experience in the strawberry business."

J. P. OHMER.

WEST TORRINGTON, CONN., April 19, 1887.

"I received the Jessie and Crawford Strawberry plants in perfect condition to-day, and have set them out in a cold frame. We had quite a snow storm yesterday, and I drew a very large load of hay on a sled from West Torrington (4½ miles from here) to-day."

R. C. HART.

COLUMBIA, TENN., Oct. 22, 1887.

The plants came promptly to hand by express, and have all been planted. I never saw nicer in my life. I also received the fifty Sharpless by mail. I am much pleased with them, and thank you for your promptness and liberality. It is a great pleasure to deal with a gentleman.

JOSH. G. BAILEY.

HORSE CAVE, KY., April 13, 1887.

"Plants received this morning and they are beauties, and in such perfect condition. Your mode of packing is perfect. I have received plants from almost all growers east and west for the last twenty years, but I cannot recollect of a lot that opened out as well as yours, and the most liberal count and extras! Well, you not only take the cake, but the whole bakery."

E. M. HOBBS.

MT. HOLLY, N. J., May 10, 1887.

"The Jessie plants that I received of you sometime ago were first-class, with good roots. Every one lived and is doing finely, which is more than I can say of plants received from some other parties. I do get some of the poorest plants with hardly any roots to them—utterly worthless. Whenever you have any new kinds of merit, you will get my custom."

JAMES LIPPINCOTT, JR.

ELIZABETH, PA., May 5, 1887.

"The plants came on Tuesday, in the best possible condition. I expected to get something pretty nice, but they were far beyond what I expected. They are the best plants I ever bought."

T. MARTIN.

ALBANY, ILL., May 5, 1887.

"I received the strawberry plants ordered from you, in first rate shape and condition, also the Jessies from Janesville, Wis. I was well pleased. I never before received plants in such fine condition it seems to me, and I have been a good many years in the business."

S. M. WHITCOMB.

BURLINGAME, KAN., May 9, 1887.

"The Strawberry plants received in good order and are growing nicely. Please accept thanks for your generosity in selecting such costly varieties."

MRS. E. S. FISH.

DAYTON, O., April 16, 1887.

"The Babach's No. 5, and Jessie plants received in excellent order."

HICKES NURSERIES CO.

SPRINGFIELD, ILL., April 19, 1887.

"The strawberry plants were received yesterday, as fresh and nice as if they were taken right out of the ground. Thanks for the large number you sent. The Jessie plants are extra large."

DANIEL S. KRIEDEL.

AGRICULTURAL COLLEGE, AMES, IA., May 7, 1887.

"I received the strawberry plants by express, prepaid, all in good order. Please accept thanks for the Ohio sent extra."

J. A. KEHR.

PALMYRA, MO., April 25, 1887.

"Plants received. I think they are the finest I ever saw."

JOHN W. RUSSELL.

GARDEN CITY, MINN., April 29, 1887.

"Plants received in fine condition. Thank you for liberal counting and extras. I get much better plants, and in better condition, from you than anywhere else."

L. D. MILLS.

AGRICULTURAL COLLEGE, MICH., April 30, 1887.

"The strawberries are received in good condition. You will please accept thanks."

L. H. BAILEY, JR.